

ABSTRACTS

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Policy Research Working Paper Series

Numbers 2857–2882

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Policy Research
Working Paper Series

Abstracts

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2857. Markups, Returns to Scale, and Productivity: A Case Study of Singapore's Manufacturing Sector

Hiau Looi Kee
(June 2002)

The results of this paper challenge the conventional wisdom in the literature that productivity plays no role in the economic development of Singapore. Properly accounting for market power and returns to scale technology, the estimated average productivity growth is twice as large as the conventional total factor productivity (TFP) measures.

Using a standard growth accounting (production function) technique, Young (1992, 1995) found no sign of TFP growth in the aggregate economy and the manufacturing sector of Singapore. Based on Young's results, Krugman (1994) claimed that there was no East Asia miracle as all the economic growth in Singapore could be attributed to its capital accumulation in the past three decades. Citing evidence on nondiminishing market rates of return to capital investment in Singapore during the period of fast growth as an indication of high productivity growth, Hsieh (1999) challenged Young's findings using the dual approach. But all of these papers maintained the assumptions of perfect competition and constant returns to scale and used only aggregate macro-level data.

Kee uses industry level data and focuses on Singapore's manufacturing sector. She develops an empirical methodology to estimate industry productivity growth in the presence of market power and non-constant returns to scale. The estimation of industry markups and returns to scale in this paper combines both the production function (primal) and the cost function (dual) approaches while controlling for input endogeneity and selection bias.

The results of a fixed effect panel regression show that all industries in the manufacturing sector violate at least one of the two assumptions. Relaxing the assumptions leads to an estimated productivity growth that is on average twice as large as the conventional TFP calculation. Kee concludes that productivity growth plays a nontrivial role in the manufacturing sector.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to understand the links between trade, productivity, and growth. Copies of the paper are available free from the World Bank, 1818 H Street

NW, Washington, DC 20433. Please contact Maria Kasilag, room MC3-321, telephone 202-473-9081, fax 202-522-1159, email address mkasilag@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at hlee@worldbank.org. (37 pages)

2858. The State of Corporate Governance: Experience from Country Assessments

Olivier Fremond and Miarta Capaul
(June 2002)

Corporate governance deals with the ways in which the rights of outside suppliers of equity finance to corporations are protected and receive a fair return. Good practices reduce the risk of expropriation of outsiders by insiders and thus the cost of capital for issuers. Capaul and Fremond review the experience of the preparation of 15 corporate governance country assessments across five continents. The assessments have been prepared under the umbrella of the joint World Bank/IMF initiative of the "Reports on the Observance of Standards and Codes" (ROSCs). The assessments focus on the rights of shareholders, the equitable treatment of shareholders, the role of stakeholders, disclosure and transparency, and the duties of the board of listed companies, and use the OECD Principles of Corporate Governance as benchmark. The authors give an overview of the actual and potential contribution of the assessments to policy dialogue, diagnostic and strategic work, lending and nonlending operations, and technical assistance and capacity, and presents the unfinished agenda.

This paper—a product of the Corporate Governance Unit, Private Sector Advisory Services Department—is part of a larger effort in the department to disseminate lessons learned in the assessment of the compliance of countries to global standards. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Genalinda Gorospe, room I9-030, telephone 202-473-2623, fax 202-522-2029, email address ggorospe@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at offremond@worldbank.org or mcapaul@worldbank.org. (30 pages)

2859. Ethnic and Gender Wage Disparities in Sri Lanka

Mohamed Ihsan Ajwad and
Pradeep Kurukulasuriya
(June 2002)

Ajwad and Kurukulasuriya examine wage inequalities in Sri Lanka's formal sector using data from the Sri Lanka Integrated Survey 1999–2000. The study aims to:

- Investigate whether the labor market is characterized by wage disparities among ethnic and gender groups.
- Identify the determinants of wages and the factors that affect the wage differential.
- Analyze the determinants of wages across the conditional wage distribution.
- Disaggregate the ethnic or gender wage disparities where observed into a component affected by the endowment of productive characteristics, as well as a component affected by the returns to those productive characteristics in the labor market.

The authors find that ethnicity is not a significant determinant of wages. The result is robust to different specifications. In addition, ethnicity is not significant in any of the conditional quantiles estimated.

However, there is gender disparity in wage rates in Sri Lanka. The magnitude of this disparity varies depending on the worker's ethnicity. This gender wage disparity varies by about 10 percent for Tamils and 48 percent among other ethnicities. In addition, the authors find that much of the gender disparity is not explained by productive characteristics, implying that discrimination against women may play a role. The quantile regression estimates indicate that the premium paid to male workers in the labor force is more pronounced in the upper conditional wage rate distribution.

This paper is a product of the Economic Policy Division, Poverty Reduction and Economic Management Network. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Zeba Jetha, room MC2-422, telephone 202-458-4321, fax 202-522-7551, email address zjetha@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at majwad@worldbank.org or pradeep.kurukulasuriya@yale.edu. (22 pages)

2860. Privatization in Competitive Sectors: The Record to Date

Sunita Kikeri and John Nellis
(June 2002)

The paper reviews recent evidence on the impact of privatization. It focuses on traditional privatization efforts involving firms in competitive markets. It shows that privatization improves firms' financial and operating performance, yields positive fiscal and macroeconomic benefits (proceeds are saved rather than spent, transfers decline, and governments start collecting taxes from privatized firms), and improves overall welfare. The popular view that privatization always leads to layoffs is unfounded. While highly protected firms have seen significant declines in net employment, competitive firms generally experienced slight declines if any. Privatization's effects on wealth and income distribution have only recently been receiving the attention of analysts, and research is just getting underway.

The paper highlights the conditions for successful privatization: strong political commitment combined with wider public understanding of and support for the process; creation of competitive markets through removal of entry and exit barriers, financial sector reforms that create commercially oriented banking systems, effective regulatory frameworks that reinforce the benefits of private ownership; transparency in the privatization process; and measures to mitigate adverse social and environmental effects.

This paper—a product of the Private Provision of Public Services Division, Private Sector Advisory Services Department—is part of a larger effort in the department to analyze and disseminate recent findings in private sector development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rosario Bartolome, room I9-051, telephone 202-473-5703, fax 202-522-3481, email address rbartolome@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at skikeri@worldbank.org or jnellis@starpower.net. (50 pages)

2861. Trade-Related Technology Diffusion and the Dynamics of North-South and South-South Integration

Maurice Schiff, Yanling Wang,
and Marcelo Olarreaga
(June 2002)

This paper examines the impact on total factor productivity of North-South and South-South trade-related research and development (R&D) spillovers. It is the first, as far as we know, to do so at the industry level for developing countries. North-South and South-South R&D flows are constructed based on industry-specific R&D in the North, North-South and South-South trade patterns, and input-output relations in the South. The main findings are:

- North-South and South-South R&D flows have a positive impact on total factor productivity, though the former is larger.

- R&D-intensive industries benefit mainly from North-South R&D flows while low R&D-intensive industries benefit mainly from South-South R&D flows. These results have implications for dynamic comparative advantage and for the dynamics of North-South and South-South regional integration.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to understand the impact of trade on technology diffusion. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Kasilag, room MC3-303, telephone 202-473-9081, fax 202-522-1159, email address mkasilag@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at mschiff@worldbank.org or molarreaga@worldbank.org. (25 pages)

2862. Tenure, Diversity, and Commitment: Community Participation for Urban Service Provision

Somik V. Lall, Uwe Deichmann, Mattias K. A. Lundberg, and Nazmul Chaudhury
(June 2002)

What factors influence community participation in the delivery of urban services?

In particular, does security of tenure enhance the probability of participation as it provides individuals with incentives to act collectively in pursuit of a common objective? And are collective efforts less likely to succeed when there is a high degree of heterogeneity in culture or endowments among community members?

Lall, Deichmann, Lundberg, and Chaudhury use household level survey data for Bangalore, India, to show that tenure security has a significant impact on the willingness of residents to participate even when neighborhoods are diverse in terms of their cultural background and welfare status. Their findings suggest that participation is possible in heterogeneous communities when it is a means to a common objective and not a goal by itself.

This paper—a product of Infrastructure and Environment, Development Research Group—is part of a larger effort in the group to examine factors influencing urban development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Yasmin D'Souza, room MC2-622, telephone 202-473-1449, fax 202-522-3230, email address ydsouza@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at slall1@worldbank.org, udeichmann@worldbank.org, mlundberg@worldbank.org, or nchaudhury@worldbank.org. (32 pages)

2863. Getting Connected: Competition and Diffusion in African Mobile Telecommunications Markets

Frew Amare Gebreab
(June 2002)

Gebreab studies the determinants of the diffusion of mobile telecommunications in Africa in a fixed effects model. He uses data from 1987–2000 on 41 African countries that have adopted cellular telecommunications technologies. He finds that competition is the driving force behind the mobile telecommunications explosion in Africa.

Duopoly and triopoly markets grow significantly faster than monopoly markets, although growth does not appear to differ between the first two markets. Evidence of preemptive behavior is found in competitive sequential entries into the mar-

ket, but the major effect of competition on diffusion occurs after the actual year of entry. The introduction of digital technology has a positive and significant effect on the diffusion of mobile phones. The presence of an incumbent-owned cellular operator has a negative effect on the diffusion of mobiles, suggesting an abuse of a dominant position by the incumbent fixed-line operator. However, privatization of the incumbent fixed-line cellular operator accelerates mobile growth and mitigates that negative effect.

This paper—a product of Regulation and Competition Policy, Development Research Group—is part of a larger effort in the group to promote telecommunications competition, liberalization, and privatization in Africa. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, D.C. 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, email address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at fgebreab@worldbank.org. (33 pages)

2864. Telecommunications Reform In Uganda

Mary M. Shirley, F. F. Tusubira, Frew Gebreab, and Luke Haggarty
(June 2002)

The paper documents the case of Uganda's telecommunications reform. Uganda is one of only two countries in Africa that decided to privatize telecommunications in a competitive framework by selling a second national operator license.

The authors find that Uganda did not sacrifice significant sales proceeds by choosing competition, but instead gained tremendously in both the speed and scale of investment from its early focus on competition.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger research program analyzing the effects of regulatory, legal, political, and bureaucratic institutions on telecommunications reform in Africa. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-

422, telephone 202-473-8526, fax 202-522-1155, email address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at mshirley@worldbank.org, fgebreab@worldbank.org, or lhaggarty@worldbank.org. (68 pages)

2865. Bankruptcy Around the World: Explanations of Its Relative Use

Stijn Claessens and Leora F. Klapper
(July 2002)

The recent literature on law and finance has drawn attention to the importance of creditor rights in influencing the development of financial systems and in affecting firm corporate governance and financing patterns. Recent financial crises have also highlighted the importance of insolvency systems to resolve corporate sector financial distress. The literature and crises have emphasized the complex role of creditor rights, affecting not only the efficiency of ex-post resolution of distressed corporations, but also influencing ex-ante risk-taking incentives and an economy's degree of entrepreneurship more generally.

Claessens and Klapper document how often bankruptcy is actually being used for a panel of 35 countries. Next they investigate the effects of specific design features of insolvency regimes in relation to the quality of the countries' overall judicial systems on the use of bankruptcy.

The authors find, correcting for overall financial development and macroeconomic shocks, that bankruptcies are higher in Anglo-Saxon countries and in market-oriented financial systems characterized by weaker and multiple banking relationships. They also find that greater judicial efficiency is associated with more use of bankruptcy, but that the combination of stronger creditor rights with greater judicial efficiency leads to less use. The authors find that the presence of a "stay on assets" leads to fewer bankruptcies independent of the efficiency of the judicial system. These findings suggest that there are important incentive effects of insolvency systems encouraging less risky behavior and more out-of-court settlements.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to understand

corporate bankruptcy. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, D.C. 20433. Please contact Agnes Yaptenco, room MC3-446, telephone 202-473-1823, fax 202-522-1155, email address ayaptenco@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at stijn@fee.uva.nl or klapper@worldbank.org. (34 pages).

2866. Transforming the Old Into a Foundation for the New: Lessons of the Moldova ARIA Project

David Ellerman and Vladimir Kreacic
(July 2002)

This paper is a case study of what is recognized as one of the more successful projects in any country in the Europe and Central Asia region, not to mention in the poorest country of the region—Moldova. The ARIA project shows new ways to attack some of the most intractable problems of private sector development in Europe and Central Asia: how to facilitate reorganization and liquidation bankruptcies; how to promote small and medium enterprise spin-offs and new start-ups; and how to promote new learning at the enterprise level, both in the form of "Marshall Plan" programs with more advanced post-socialist countries, as well as continuous improvement programs (such as those adapted from Japanese programs). The prime mover for these programs is the quasi-public restructuring agency, ARIA, which was established as part of the Moldova Private Sector Development I loan. ARIA was structured to try to combine private sector entrepreneurship with a public function in the process of restructuring and bankruptcy. The study tries to account for the strategies and innovations that lead to results. And it tries to connect the ARIA strategy to past development literature by viewing the study through Albert Hirschman's work on social learning and change.

This paper—a joint product of the Office of the Senior Vice President and Chief Economist, Development Economics, and the Private and Financial Sectors Development Unit, Europe and Central Asia Region—is part of a larger effort in the Bank to draw and interpret lessons from

best practices. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Narin Jameson, room MC4-333, telephone 202-473-0677, fax 202-522-1158, email address njameson@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at dellerman@worldbank.org or vkreacic@worldbank.org. (19 pages)

2867. Cotton Sector Strategies in West and Central Africa

Ousmane Badiane, Dhaneshwar Ghura, Louis Goreux, and Paul Masson
(July 2002)

Cotton production is truly a success story in West and Central Africa. The region is now the second largest exporter of lint, after the United States, with a world market share of 15 percent. Despite its strong performance in the past, the sector is characterized by several institutional and structural weaknesses that jeopardize its viability in an era of increasing globalization of the cotton industry. The sector's future performance will also depend on the implications of cotton sector policies in major producing countries such as the United States, the European Union, and China. This paper examines how the above factors may affect future growth of the region's cotton industry. It also identifies the changes that are required to enable countries in the region to fully exploit the sector's significant growth potential.

This paper—a product of Rural Development 2, Africa Technical Families—is part of a larger effort in the region to contribute to the debate on development strategies in West and Central Africa. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Azra Lodi, room J6-269, telephone 202-473-4478, fax 202-473-5147, email address alodi@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at obadiane@worldbank.org, dghura@limf.org, or pmasson@imf.org. (20 pages)

2868. Universal (ly Bad) Service: Providing Infrastructure Services to Rural and Poor Urban Consumers

George R.G. Clarke and Scott J. Wallsten
(July 2002)

Until recently, utility services (telecommunications, power, water, and gas) throughout the world were provided by large, usually state-owned, monopolies. However, encouraged by technological change, regulatory innovation, and pressure from international organizations, many developing countries are privatizing state-owned companies and introducing competition. Some observers worry that even if reforms improve efficiency, they might compromise an important public policy goal—ensuring “universal access” for low-income and rural households.

Clarke and Wallsten review the motivation for universal service, methods used to try to achieve it under monopoly service provision, how reforms might affect these approaches, and the theoretical and empirical evidence of the impact of reform on these consumers. Next, using household data from around the world, they investigate empirically the historical performance of public monopolies in meeting universal service obligations and the impact of reform.

The results show the massive failure of state monopolies to provide service to poor and rural households everywhere except Eastern Europe. Moreover, while the data are limited, the evidence suggests that reforms have not harmed poor and rural consumers, and in many cases have improved their access to utility services. Nevertheless, because competition undermines traditional methods of funding universal service objectives (cross-subsidies), the authors also review mechanisms that could finance these objectives without compromising the benefits of reforms.

This paper—a product of Regulation and Competition Policy, Development Research Group—is a background paper for the Policy Research Report on *The Regulation of Infrastructure*. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, email address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at [\[worldbank.org\]\(http://worldbank.org\). The authors may be contacted at \[gclarke@worldbank.org\]\(mailto:gclarke@worldbank.org\) or \[swallsten@worldbank.org\]\(mailto:swallsten@worldbank.org\). \(54 pages\)](http://econ.</p>
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2869. Stabilizing Intergovernmental Transfers in Latin America: A Complement to National/Subnational Fiscal Rules?

Christian Y. Gonzalez, David Rosenblatt, and Steven B. Webb
(July 2002)

The traditional theory of fiscal federalism assigns the role of macroeconomic stabilization to the federal government. In addition to this long-standing theoretical result, there is empirical observation that federal governments in developing countries typically have cheaper and more stable access to capital markets, relative to subnational governments.

Drawing on the recent experience of four large federal countries in Latin America—Argentina, Brazil, Colombia, and Mexico—Gonzalez, Rosenblatt, and Webb examine how intergovernmental transfers affect the division of the burden of stabilization across the levels of government, when the nation as a whole faces economic fluctuations. Imposing stabilizing rules on federal transfers that protect subnational governments from fluctuations in the business cycle can serve two purposes. During boom periods, stabilizing rules prevent subnational governments' tendency to increase inflexible expenditures. And during downturns, stabilizing rules place the burden of borrowing at the federal level—the level most appropriate for macroeconomic stabilization and often the level with superior access to credit.

Despite the logic of these rules, recent experience of the four countries reveals that these rules can be risky, particularly in the face of high GDP volatility. Protection against falling revenues in the downturn constitutes a contingent liability for the central government. Argentina's stabilizing rule contributed to fiscal and political tensions during its ongoing crisis. Colombia is beginning to implement similar rules. Meanwhile, Brazilian and Mexican transfers do not implement such rules and fiscal and economic results do not appear to have fared any worse for this absence. The authors draw on the country experience to establish that certain conditions should be in place before establishing a

stabilization rule to federal-to-subnational fiscal transfers—in particular the elimination of long-term structural fiscal imbalances, either within levels of government or across levels of government.

This paper—a joint product of the Office of the Senior Vice President and Chief Economist, Development Economics, and the Mexico, Colombia, and Venezuela Country Department, Latin America and the Caribbean Region—is part of a larger effort in the Bank to draw on lessons from cross-country experience on fiscal federalism. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Beza Mekuria, room MC4-358, telephone 202-458-2756, fax 202-522-1158, email address bmekuria@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at cgonzalez@worldbank.org, drosenblatt@worldbank.org, or swebb@worldbank.org. (32 pages)

2870. Electronic Security: Risk Mitigation in Financial Transactions—Public Policy Issues

Thomas Glaessner, Tom Kellermann,
and Valerie McNevin
(July 2002)

This paper builds on a previous series of papers (see Claessens, Glaessner, and Klingebiel, 2001, 2002) that identified electronic security as a key component to the delivery of electronic finance benefits. This paper and its technical annexes (available separately at <http://www1.worldbank.org/finance/>) identify and discuss seven key pillars necessary to fostering a secure electronic environment. Hence, it is intended for those formulating broad policies in the area of electronic security and those working with financial services providers (for example, executives and management). The detailed annexes of this paper are especially relevant for chief information and security officers responsible for establishing layered security.

First, this paper provides definitions of electronic finance and electronic security and explains why these issues deserve attention. Next, it presents a picture of the burgeoning global electronic security industry. Then it develops a risk-management framework for understanding the

risks and tradeoffs inherent in the electronic security infrastructure. It also provides examples of tradeoffs that may arise with respect to technological innovation, privacy, quality of service, and security in designing an electronic security policy framework. Finally, it outlines issues in seven interrelated areas that often need attention in building an adequate electronic security infrastructure. These are:

- The legal framework and enforcement.
- Electronic security of payment systems.
- Supervision and prevention challenges.
- The role of private insurance as an essential monitoring mechanism.
- Certification, standards, and the role of the public and private sectors.
- Improving the accuracy of information on electronic security incidents and creating better arrangements for sharing this information.
- Improving overall education on these issues as a key to enhancing prevention.

This paper—a product of the Financial Sector Strategy and Policy Department—is part of a larger effort in the department to study sustainable financial development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Elena Mekhova, room MC9-622, telephone 202-458-5984, fax 202-522-2031, email address emekhova@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. Thomas Glaessner may be contacted at tglaessner@worldbank.org. (55 pages)

2871. Pricing of Deposit Insurance

Luc Laeven
(July 2002)

Laeven aims to provide guidelines for the pricing of deposit insurance in different countries. He presents several methodologies that can be used to set benchmarks for the pricing level of deposit insurance in a country, and quantifies how specific design features affect the cost of deposit insurance.

The author makes several contributions to our understanding of what drives the price of deposit insurance. For example, he shows how risk diversification and risk differentiation within a deposit insurance

system can reduce the price of deposit insurance. Laeven also finds that deposit insurance is underpriced in many countries around the world, notably in several developing countries. More important, his estimates suggest that many countries cannot afford deposit insurance.

Deposit insurance is unlikely to be a viable option in a country with weak banks and institutions. The author does not recommend a funded deposit insurance scheme, but rather he argues that for countries that have adopted or are adopting deposit insurance and have decided to pre-fund it, pricing it as accurately as possible is important.

This paper—a product of the Financial Sector Strategy and Policy Department—is part of a larger effort in the department to study the costs and benefits of deposit insurance. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-624, telephone 202-473-3722, fax 202-522-2031, email address hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at llaeven@worldbank.org. (69 pages)

2872. Regional Cooperation, and the Role of International Organizations and Regional Integration

Maurice Schiff and L. Alan Winters
(July 2002)

Schiff and Winters examine regional cooperation among neighboring countries in the area of regional public goods. These public goods include water basins (such as lakes, rivers, and underground water), infrastructure (such as roads, railways, and dams), energy, and the environment. Their analysis focuses on developing countries and the potentially beneficial role that international organizations and regional integration may play in bringing the relevant countries to a cooperative equilibrium.

A major problem in reaching a cooperative solution is likely to be the lack of trust. If neighboring countries do not trust each other because of past problems, they may fail to reach a cooperative solution as each tries to maximize its gain from the regional public good. These strategies typi-

cally do not account for spillover effects and ultimately leads to losses for all parties. Other constraints on reaching a cooperative solution are its complexity and the financial requirements.

Two types of institutions may help resolve some or all of these problems. International organizations can help with trust, expertise, and financing. The United Nations and the World Bank have been involved in a number of such projects in Africa, Asia, and elsewhere, and have been successful in helping parties reach cooperative solutions. Regional integration agreements, though not necessary for regional cooperation, may also be helpful by embedding the negotiations on regional cooperation in a broader institutional framework. The authors examine these issues with the support of both analysis and a number of case studies.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to examine the role and effects of regional integration. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. Maurice Schiff may be contacted at mschiff@worldbank.org. (33 pages)

2873. A Little Engine that Could ... Domestic Private Companies and Vietnam's Pressing Need for Wage Employment

Liesbet Steer and Markus Taussig
(August 2002)

Vietnam's young private sector is growing fast, due mainly to a policy environment that recognizes the importance of private entrepreneurship—particularly to help increase significantly job creation, which the country needs urgently. To extend the benefits of private sector growth from the urban centers where it has so far been concentrated to the rural areas where most Vietnamese live—and where underemployment is heaviest—more information on what is working and what is not will be needed.

Steer and Taussig present an objective picture of Vietnam's emerging private

sector two years after the implementation of its much praised Enterprise Law. Private companies are significantly better off than they were a couple years earlier, when regional economic recession and stagnating domestic policy reforms had nearly halted development of the formal private sector. At the same time, the sector's small base means that its impressive rates of job creation still fall far short of matching the booming growth of the overall work force.

Data for this paper were collected from Vietnam's General Office of Statistics, individual company case studies, and a national firm-level survey designed and implemented by the authors. The research reveals significant gaps in available private sector data and flaws in current data-gathering methodologies, calling into question the ability of policymakers and advisors to understand rapid, ongoing economic developments and make appropriate policy decisions. The paper seeks to provide a starting point and an impetus for more targeted research aimed at identifying and addressing specific obstacles to sustainable and broad-based job and wealth creation.

This paper—a product of the Poverty Reduction and Economic Management Sector Unit, East Asia and Pacific Region—is part of a larger effort in the region to understand the linkages between private sector development, employment generation, and poverty reduction. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hera Sutrisna, room MC9-242, telephone 202-58-8032, fax 202-522-1671, email address hsutrisna@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at lsteer@netnam.vn or markus@fpt.vn. (36 pages)

2874. The Risks and Macroeconomic Impact of HIV/AIDS in the Middle East and North Africa: Why Waiting to Intervene Can Be Costly

David A. Robalino, Carol Jenkins,
and Karim El Maroufi
(August 2002)

Robalino, Jenkins, and El Maroufi develop a model of optimal growth to assess the risks of an HIV/AIDS epidemic and the

expected economic impact in nine countries in the Middle East and North Africa region—Algeria, Djibouti, Egypt, Iran, Jordan, Lebanon, Morocco, Tunisia, and Yemen. The model incorporates an HIV/AIDS diffusion component based on two transmission factors—sexual intercourse and exchange of infected needles among intravenous drug users. Given high levels of uncertainty on the model parameters that determine the dynamics of the epidemic and its economic impact, the authors explore large regions of the parameter space. The prevalence rates in year 2015 would be below 1 percent in 16 percent of the cases, while they would be above 3 percent in 50 percent of the cases. On average, GDP losses across countries for 2000–2025 could approximate 35 percent of today's GDP. In all countries it is possible to observe scenarios where losses surpass today's GDP. The authors quantify the impact of expanding condom use and access to clean needles for intravenous drug users. They show that these interventions act as an insurance policy that increases social welfare. They also show that delaying action for five years can cost, on average, the equivalent of six percentage points of today's GDP.

This paper—a product of the Human Development Group, Middle East and North Africa Region—is part of a larger effort in the region to raise awareness about the social and economic cost of HIV/AIDS. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Cheikh Fall, room H8-118, telephone 202-473-0632, fax 202-477-0036, email address cfall1@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. David Robalino may be contacted at drobolino@worldbank.org. (34 pages)

2875. Does Liberté=Egalité? A Survey of the Empirical Links between Democracy and Inequality with Some Evidence on the Transition Economies

Mark Gradstein and Branko Milanovic
(August 2002)

The effect of the distribution of political rights on income inequality has been studied both theoretically and empirically. Gradstein and Milanovic review the existing literature and, in particular, the avail-

able empirical evidence. The literature suggests that formal exclusion from the political process through restrictions on the voting franchise appears to have caused a high degree of economic inequality. And democratization in the form of franchise expansion has typically led to an expansion in redistribution, at least in the small sample of episodes studied. In a less pronounced way, albeit more emphatically compared with the ambiguous results of earlier research, recent evidence indicates an inverse relationship between other measures of democracy, based on civil liberties and political rights, and inequality.

The transition experience of Eastern European countries, however, seems to some extent go against these conclusions. This opens possible new vistas for research, namely the need to incorporate the length of democratic experience and the role played by ideology and social values.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to study the effects of inequality and poverty in the world. The study was funded by the Bank's Research Support Budget under the research project "Democracy and Redistribution" (RPO 683-01). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at grade@bgumail.bgu.ac.il or bmilanovic@worldbank.org. (38 pages)

2876. Can We Discern the Effect of Globalization on Income Distribution? Evidence from Household Budget Surveys

Branko Milanovic
(August 2002)

The effects of globalization on income distribution in rich and poor countries are a matter of controversy. While international trade theory in its most abstract formulation implies that increased trade and foreign investment should make income distribution more equal in poor countries and less equal in rich countries, finding these effects has proved elusive. Milanovic presents another attempt to discern the ef-

fects of globalization by using data from household budget surveys and looking at the impact of openness and foreign direct investment on relative income shares of low and high deciles. The author finds some evidence that at very low average income levels, it is the rich who benefit from openness. As income levels rise to those of countries such as Chile, Colombia, or Czech Republic, for example, the situation changes, and it is the relative income of the poor and the middle class that rises compared with the rich. It seems that openness makes income distribution worse before making it better—or differently in that the effect of openness on a country's income distribution depends on the country's initial income level.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to study the effects of globalization. The study was funded by the Bank's Research Support Budget under the research project "World Income Distribution" (RPO 684-84). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at bmilanovic@worldbank.org. (22 pages)

2877. Patterns of Industrial Development Revisited: The Role of Finance

Raymond Fisman and Inessa Love
(August 2002)

Fisman and Love reexamine the role of financial market development in the intersectoral allocation of resources. First, they characterize the assumptions underlying previous work in this area, in particular, that of Rajan and Zingales (1998). The authors argue that Rajan and Zingales (1998) implicitly test whether financial intermediaries allow firms to better respond to global shocks to growth opportunities. Second, the authors propose a more efficient alternative test of this hypothesis using statistical techniques developed in the social networks literature. Specifically, they find that countries have more highly correlated growth rates across sectors when they

have well-developed financial markets, suggesting that financial markets play an important role in allowing firms to take advantage of global growth opportunities. These results are particularly strong when financial development takes into account both the *level* and *composition* of financial development: private banking appears to play a particularly important role in resource allocation. The authors' technique allows them to further distinguish between the "growth opportunities" hypothesis stated above and the alternative "finance and external dependence" hypothesis, which implies that countries with similar levels of financial development should specialize in similar sectors. They do not find evidence to support this alternative view of finance and development.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study access to finance. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, email address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at rf250@columbia.edu or ilove@worldbank.org. (44 pages)

2878. On the Governance of Public Pension Fund Management

Gregorio Impavido
(August 2002)

Impavido surveys the empirical literature on the relationship between governance of public pension fund management and investment performance. He makes a preliminary attempt to identify good governance practices and distill governance guidelines aimed at reducing the political risk that is associated with central, public pension fund management. The author highlights the need for further work to support the development of a satisfactory set of governance guidelines.

This paper—a product of the Financial Sector Operations and Policy Department—is part of a larger effort in the department to study the effects of contractual savings on financial markets. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washing-

ton, DC 20433. Please contact Patricia Braxton, room MC9-704, telephone 202-473-2720, fax 202-522-7105, email address pbraxton@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at gimpavido@worldbank.org. (36 pages)

2879. Externalities in Rural Development: Evidence for China

Martin Ravallion
(August 2002)

Ravallion tests for external effects of local economic activity on consumption and income growth at the farm-household level using panel data from four provinces of post-reform rural China. The tests allow for nonstationary fixed effects in the consumption growth process. Evidence is found of geographic externalities, stemming from spillover effects of the level and composition of local economic activity and private returns to local human and physical infrastructure endowments. The results suggest an explanation for rural underdevelopment arising from underinvestment in certain externality-generating activities, of which agricultural development emerges as the most important.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to better understand the causes of poverty. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Catalina Cunanan, room MC-3-542, telephone 202-473-2301, fax 202-522-1151, email address ccunanan@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at mravallion@worldbank.org. (35 pages)

2880. The Hidden Costs of Ethnic Conflict: Decomposing Trends in Educational Outcomes of Young Kosovars

Soumya Alva, Edmundo Murrugarra,
and Pierella Paci
(August 2002)

Alva, Murrugarra, and Paci examine the impact of ethnic segmentation in educa-

tion on educational outcomes. Between 1991 and the late 1990s, the Albanian Kosovar population received education services in an informal system parallel to the official one. Using the 2000 Kosovo LSMS Survey data, the authors exploit cohort differences in exposure to the parallel system to estimate its effects among Albanian youth. The first (untreated) cohort includes individuals who entered secondary education before 1991 when the “parallel” education system was initiated. The second (treated) cohort includes individuals who entered secondary school in the last ten years under the ethnically segmented education system. To disentangle the effects of the changing system and economic environment, and the changes in the characteristics of the population, a Oaxaca-type decomposition is used.

The results suggest that the past decade of ethnic tension has claimed a substantial toll on the educational outcomes of young male Albanian Kosovars. In addition to declines in enrollment rates in secondary education, those who are enrolled are expected to complete one less year of education. However, secondary school enrollment for girls increased during the parallel system, but with a sharp decline in the expected number of years completed.

This paper—a product of the Human Development Sector Unit, Europe and Central Asia Region—is part of a larger effort in the region to examine poverty and social service delivery issues. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Theresa Bebli, room H7-114, telephone 202-473-9690, fax 202-477-0574, email address tbebli@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at salva@unc.edu, emurrugarra@worldbank.org, or ppaci@worldbank.org. (31 pages)

2881. Returns to Investment in Education: A Further Update

George Psacharopoulos and Harry
Anthony Patrinos
(September 2002)

Returns to investment in education based on human capital theory have been estimated since the late 1950s. In the 40-plus

year history of estimates of returns to investment in education, there have been several reviews of the empirical results in attempts to establish patterns. Many more estimates from a wide variety of countries, including over time evidence, and estimates based on new econometric techniques, reaffirm the importance of human capital theory. Psacharopoulos and Patrinos review and present the latest estimates and patterns as found in the literature at the turn of the century. However, because the availability of rate of return estimates has grown exponentially, the authors include a new section on the need for selectivity in comparing returns to investment in education and establishing related patterns.

This paper—a product of the Education Sector Unit, Latin America and the Caribbean Region—is part of a larger effort in the region to document the benefits of investments in education. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Nelly Vergara, room I7-004, telephone 202-473-0432, fax 202-522-3135, email address nvergara@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. Harry Patrinos may be contacted at hpatrinos@worldbank.org. (28 pages)

2882. Politically Optimal Tariffs: An Application to Egypt

Dorsati Madani and Marcelo Olarreaga
(September 2002)

Egyptian economic history has been influenced by the import-substitution industrialization approach to development, dating back to Gamal Abdel Nasser's Pan-Arabic and socialist movement in the 1950s. Two major waves of liberalization have marked the government's efforts to rationalize and modernize the economy—the *Infitah* (opening) promoted by Anwar Sadat in the 1980s, and further trade and privatization efforts by Hosni Mubarak in the 1990s. Nonetheless, the extent of trade liberalization does not compare well with similar countries. Despite a decade of liberalization, the trade regime is characterized by deliberate and gradual reforms. By 1999 these reforms had led to average tariffs close to 30 percent, with high dispersion and escalation, well above those in comparable countries.

Dorsati and Olarreaga provide a political economy analysis of the difficulties of liberalizing tariffs in Egypt in general, and in its specific industries. They present the theoretical and empirical models and discuss the results. The authors also explore the potential effects of the Euro-Med agreement for Egypt.

The political economy analysis of the Egyptian tariff structure identifies two sets of highly protected sectors. Overprotected industries are defined as those with actual tariffs at least 25 percent higher than what is predicted by the political economy variables. The political determinants can be divided into two groups: the lobbying and counter-lobbying forces. First, the lobbying strength of specific capital in each sector is proxied by the degree of industry concentration, the labor-capital ratio, and the import penetration ratio. Second, counter-lobbying in factor or input markets is proxied by wage level, degree of processing in the industry, and degree of intra-industry trade. Using this methodology, the authors identify two sets of products: six products where tariff cuts will *not* be politically costly, and six where it will be politically costly. In both cases, lowering tariffs will improve resource allocation and efficiency in the industries involved.

The prospects of a free trade area with Europe should also help reduce tariffs in sectors where a high share of production is exported or imported from Europe. If products are exported to Europe, the potential free access to the European market should more than compensate for any tariff reductions in the local market. On the other hand, if products are heavily imported from Europe, the preferential access for European exporters will tend to significantly increase their presence in the Egyptian market. This in turn will reduce the "protective" aspect of external tariffs in sectors with large import penetration as competition will be coming from Europe.

The EU-Egypt agreement includes a lengthy (19 years) structure of tariff reduction. This structure will lead to increased effective rates of protection for the first eight years of its implementation, added economic distortions, and inefficient use of resources. The Egyptian authorities may want to consider speeding up the Euro-Med schedule of liberalization to mitigate an increase in effective rates of protection. Furthermore, special effort should be made to reduce external tariffs

on semi-processed and processed goods to attenuate the expected negative effects of the rise in effective rates of protection.

More generally, to prevent the high potential for trade diversion associated with Egypt's high tariffs, a simultaneous reduction in Egypt's external tariffs should accompany the EU-Egypt agreement.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to understand the determinants of protection in developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at dmadani@worldbank.org or molarreaga@worldbank.org. (38 pages)